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Beyond profit: ESG disclosure, greenwashing skepticism, and sustainability assurance influences on Indonesian Gen Z's green investments

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Abstract: Indonesia's Gen Z is now entering their productive age, increasingly shaping sustainable investment trends. However, their strong pro-sustainability attitudes often do not translate into consistent green investment behavior due to concerns over greenwashing and credibility issues. Despite the rising adoption of sustainability reporting, varying trust levels may restrain Gen Z's confidence in sustainability information and influence their investment decisions. This research explores how ESG disclosure, greenwashing skepticism, and sustainability assurance affect the investment decisions of Generation Z investors in Indonesia, with trust serving as a mediating variable. Adopting a quantitative research design, data were collected through an online survey of Gen Z investors and analyzed using Partial Least Squares-Structural Equation Modeling (PLS-SEM). The findings reveal that both ESG disclosure and sustainability assurance positively affect investment decisions, whereas greenwashing skepticism shows no significant effect. Trust is also found to partially mediate and strengthen the link between sustainability assurance and investment decisions. Overall, the findings imply that companies targeting Gen Z investors should prioritize ESG disclosure and seek credible third-party assurance to promote sustainable investment among the younger generation in Indonesia.

Keywords: *ESG disclosure, Green investment, Greenwashing skepticism, Sustainability assurance, Trust.*

1. Introduction

The global financial landscape has been increasingly shaped by demographic transformation and sustainability-driven investment. According to IDN Research Institute [1], Indonesia is experiencing a demographic bonus, with 70.72% of its population in the productive age group (15–64). Within this segment, Generation Z, born between 1997 and 2012, accounts for 27.94% of the total population, approximately 74.93 million people, making it the largest generational group in the country. As a significant portion of the population transitions into the workforce, their distinct financial behaviors and sustainability-oriented mindset are increasingly influencing consumption patterns, investment trends, and the broader economic growth of the country.

Gen Z's strong environmental and social consciousness has fostered a growing interest in sustainability-oriented investments such as green bonds, ESG mutual funds, and environmentally responsible stocks. According to a Deloitte [2] study, 64% of Gen Z prefer to invest in companies with strong sustainability commitments. Nonetheless, some existing research shows that even though Gen Z exhibits high pro-sustainability attitudes, their actual participation in sustainable investments remains inconsistent [3]. This suggests that there are more factors beyond that influence decisiveness in investment behavior.

Serves as one of the key instruments, ESG disclosures promote corporate transparency and strengthen investor accountability as they allow investors to assess sustainability risks and allocate a company's capital more responsibly by providing information on the company's non-financial performance. However, despite such global momentum, its effectiveness remains debatable, especially in

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emerging markets due to heterogeneous and unstandardized reporting [4]. Some studies argue that transparent ESG disclosures can enhance investor confidence [5, 6], whereas others mention and warn of the disclosure fatigue and information overload that may distort the decision usefulness. This ambiguity also led to the phenomenon of greenwashing skepticism, that firms may cherry-pick, selectively disclose only information that may attract ethically driven investors. Consequently, in this context, even if Gen Z exhibits strong pro-sustainability attitudes, their willingness to invest in green assets may be weakened [3].

Furthermore, the impact of third-party sustainability assurance still remains underexplored. Bu et al. [7] suggest that assurance increases investor confidence and reduces capital costs, while Ahmed [8] reveals limited awareness and skepticism about its rigor. Assurance may only affect Gen Z's investment decisions if they trust the credibility of the assuring entity and the report itself. These contradictory findings leave an important underlying question: i.e., but what if they do not affect them? This tension between trust and distrust lies at the core of the sustainability reporting paradox, highlighting the unresolved challenge of restoring investor confidence. When investors trust sustainability information, they are more inclined to act in line with their ethical and environmental values. Distrust makes investors hesitant to engage. Trust serves a key psychological role that transforms assurance from a formal requirement into an actual driver of green investment behavior [9, 10]

Hence, this study seeks to fill these gaps by examining how ESG disclosure, greenwashing skepticism, and sustainability assurance collectively shape Gen Z's investment decisions, as well as how trust in ESG reports mediates the link between assurance and investment behavior. The Indonesian Gen Z context offers a particularly relevant setting for this analysis, given the rapid demographic growth of this generation, the evolving ESG reporting environment, and early-stage adoption of sustainability assurance practices. Through the integration of legitimacy, signaling, agency, and behavioral finance theories, this study contributes nuanced insights into the determinants of sustainable investment among emerging market investors.

In summary, this study addresses three main research gaps. First, it seeks to clarify, upon previous limited understanding, how ESG disclosure, greenwashing skepticism, and sustainability assurance collectively influence green investment behavior, particularly in emerging markets. Second, it responds to the lack of empirical evidence on how Gen Z investors respond to sustainability assurance within voluntary and unstandardized ESG reporting environments. Finally, it explores the mediating role of trust as the psychological mechanism linking assurance credibility with investment intention.

2. Literature Review

2.1. Legitimacy Theory and ESG Disclosure

Becoming a defining theme in this century, sustainability awareness, with concepts such as eco-consciousness, net-zero, and environmental responsibility, serves as a key issues that shape public expectations. This shift has redefined corporate objectives, positioning ESG (Environmental, Social, and Governance) reporting as a strategic necessity rather than a voluntary add-on.

Under Legitimacy Theory, in return for the use of resources and the right to operate, corporations are expected to act responsibly and align their practices with the social and environmental values of the community [11]. Supported by an early study that emphasized the idea of "social contract" [12] and "stakeholder accountability" [13] and so, corporations maintain legitimacy by ensuring their actions meet societal expectations. One of the legitimating tools is ESG disclosure; it bridges expectations and corporate practices. Mohammad and Wasiuzzaman [5] highlight a positive association between ESG disclosure and firm performance. It reduces information asymmetry [14], reduces ambiguity and increases investor confidence [6, 15], and supports informed investment decisions [16].

While most of the literature emphasizes the benefits of ESG disclosure, some studies report no significant impact or even adverse impacts. For instance, Sanseverino et al. [17] find no evidence of a significant incremental effect of the ESG progress report on non-professional investors. Other studies suggest that overly precise ESG disclosures may decrease market liquidity and negatively impact small

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investors [4]. Especially in an imperfect market, ESG disclosure may not reduce information asymmetry, as firms tend to internalize disclosure decisions in all circumstances to optimize their economic decisions [18]. These studies question the traditional belief that greater disclosure inherently enhances market outcomes.

Furthermore, viewing from a younger generation's perspective that places a strong emphasis on ethical and environmental principles when deciding what to consume or invest in, Deloitte [2] is very responsive to ESG factors. As Pašiušienė et al. [3] emphasized, they actively seek ESG-related information before making investment decisions and are willing to pay a premium for green products and sustainable investments. Park and Kim [19] also note their strong preference for socially responsible assets. Thus, we want to focus our analysis on the younger generations, i.e., Generation Z, which will lead the future of the asset market. Therefore, we propose that:

H_1: ESG Disclosure positively influences Gen Z's Green Investment Decisions.

2.2. Signalling Theory and Greenwashing Skepticism

Nonetheless, it once began as a voluntary practice and is now essential for all, where concepts such as green marketing and corporate social responsibility have become the epicenter of public attention [20]. The ESG investment market has surpassed $30 trillion in 2024 and is expected to increase fivefold in ten years. However, this growth has been paralleled by increasing pressure on many companies and has led to cherry-picking, often omitting less favorable information about their performance, commonly known as greenwashing Free et al. [21]. Carmichael et al. [22], in their research, highlight that there are three common strategies that companies use to greenwash, i.e., misleading statements, obfuscation, and diversion. These strategies allow organizations to influence stakeholder perceptions without undertaking real actions.

Li et al. [23] collected twelve years of quantitative and qualitative data, found that despite strong usage of keywords in the report, it is not matched by concrete actions or significant investments in clean energy. Given the mismatch between discourse, pledges, actions, and investments, the study concludes that the transition to clean energy business models is not occurring, and accusations of greenwashing are well-founded. Kathan et al. [24], who analyzed companies in STOXX Europe 600 constituents from 2015 to 2023, found that companies with high ESG scores are more prone to face greenwashing allegations.

According to signaling theory, information disclosures are intended to reduce information asymmetry and influence how external parties perceive their value and risk [25]. However, when ESG signals are perceived as deceptive, it indicates a potential misalignment between a firm's stated values and its actual practices, prompting investor caution. Such practices undermine stakeholder trust, leading to greenwashing skepticism, a rational and defensive investor response driven by the uncertainty and ambiguity of ESG claims [26]. This skepticism represents a significant barrier to building trust and encouraging participation in green investment markets.

Li et al. [27] through an analysis of Chinese A-share listed companies from 2008 to 2021, it was found that greenwashing does yield short-term corporate stock returns, and investors tend to respond more to expressive manipulation than to selective disclosure, but such effects are not sustained over the long term. Gacem et al. [28] highlight how greenwashing is an obstacle to individual investors' green investments, triggering 'distrust' and negative emotions, increasing risk perception, and ultimately discouraging green investment intention. Notably, an earlier study from Gatti et al. [29] also mentions how greenwashing skepticism raises concerns about a company's long-term resilience.

However, individual experience, values, and knowledge, such as environmental concern, prior experience with sustainable investments, and investment expertise, may influence the effect of greenwashing [30, 31]. Again, we want to highlight how skepticism towards greenwashing influences Generation Z's green investment decisions. As Pašiušienė et al. [3] stated, many of them placed sustainability commitments as indicators of future resilience and risk management, and any perceived inconsistency would raise doubts about a company's long-term credibility; therefore, we propose:

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H_2: Greenwashing skepticism negatively influences Gen Z's Green Investment Decisions.

2.3. Agency Theory and Sustainability Assurance

Agency Theory explains the challenges that arise when investors (principals) delegate decision-making power to company managers (agents), especially when the agents have access to more information than the principals [32]. In the context of ESG disclosures, this information gap can create opportunities for opportunistic behavior, such as overstating sustainability efforts or selectively disclosing favorable outcomes [33, 34]. Such as, Oluwakemi and Mishelle [35] posit that in developing nations like South Africa, ESG disclosure is not sufficient to improve financial performance and may instead reflect greenwashing practices. Similarly, Battisti et al. [36] in their analysis of 963 A-share-listed companies on the Shanghai and Shenzhen Stock Exchanges from 2016 to 2024, they found that when standards are weak or poorly implemented, third-party certification may inadvertently promote greenwashing behavior.

On the other hand, others underscore that sustainability assurance functions as a governance tool that helps align managerial and investor interests. When ESG disclosures are independently verified, they become more reliable, comprehensive, and decision-useful. Simnett et al. [33] noted that assurance over non-financial disclosures can strengthen two aspects that address agency concerns, as it improves perceived accuracy and signals corporate accountability. Thus, firms that seek assurance on their sustainability reports are not merely responding to stakeholder pressure but are actively working to reduce information asymmetry and skepticism.

The relevance of sustainability assurance becomes clearer when viewed across both developed and emerging markets. Perego and Kolk [34] found that third-party assurance improves stakeholder trust, particularly when conducted by independent providers adhering to established standards. Likewise, Mortimore [9] observed that institutional investors tend to regard ESG disclosures as reliable and factor them into decision-making when sustainability assurance is present. These effects are even more pronounced among younger investors, such as Generation Z, who are more critical of unaudited or purely voluntary disclosures.

Further evidence from Del Giudice and Rigamonti [37] indicates that assurance not only enhances report quality but also reduces perceptions of greenwashing, enabling stakeholders to better distinguish between symbolic and substantive sustainability practices. Their review shows that assured reports are generally more complete, more trusted, and more consistent, thereby strengthening investor confidence. This is echoed by the findings of the Bu et al. [7] study, which reported that firms providing sustainability assurance often benefit from lower capital costs and stronger market credibility.

On the other hand, Ahmed [8], through his research, collected from 35 in-depth semi-structured interviews with three categories of participants and five different stakeholder groups, it was found that stakeholders showed limited awareness of sustainability assurance practices. Stakeholder groups familiar with it perceive it as a tool to enhance the credibility and quality of sustainability reports. However, they still described sustainability assurance as a parallel exercise to financial audit, and it was not at the same level of rigor as financial audit. They consider it a nice-to-have but not essential. In this context, we aim to examine how Gen Z investors in Indonesia value this verification of sustainability. Hence, we propose:

H_3: Sustainability Assurance positively influences Gen Z's Green Investment Decisions.

2.4. Behavioral Finance Theory and Trust as the Mediation

Behavioral finance theory emphasizes that investment decisions are shaped not only by rational assessments of risk and return but also by cognitive biases, perceptions, and emotional responses. Among these, trust serves as a psychological construct [38] particularly in situations involving uncertainty or potential information asymmetry, such as disclosures of non-financial performance like environmental, social, and governance (ESG) reporting.

As of 2025, regulatory frameworks such as the Corporate Sustainability Reporting Directive

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(CSRD) require limited assurance of ESG disclosures intended to strengthen credibility and reliability. However, a key question remains whether it meaningfully shapes decision-makers' perceptions, specifically whether investors view assured ESG information as credible, relevant, and free from greenwashing, and ultimately whether they can trust the report, assured or not.

Recent studies suggest that independent assurance significantly influences investor perception of sustainability information reliability, further enhancing investors' confidence and helping to mitigate greenwashing concerns. Mortimore [9], in a mixed-method study on institutional investors, highlights that assurance directly affects trust and further shapes both investor judgment and long-term decision-making, which corresponds to the behavioral finance theory. Supporting this behavioral pattern, Xia et al. [10] also highlight that sustainability assurance promotes risk-taking behavior, further improves firms' reputation, and thereby facilitates long-term resilience as it shows the firm's genuine commitment to addressing ESG issues, thus building stakeholder trust.

However, Ahmed [8], contrarily, posits that stakeholders believe that companies must have underlying motivations to engage in sustainability assurance, whether a statutory requirement, stakeholder pressure, or management's need to mitigate criticism of low-quality sustainability reporting. His findings suggest that a weak model of sustainability assurance does achieve accountability to management but fails to fulfill the promise of stakeholder accountability.

Building upon the variation between trust and distrust, this study aims to address this gap by examining trust as a psychological bridge to investment behavior. Specifically, in our context, we focus on Gen Z investors, who are particularly sensitive to the authenticity of ESG information. Therefore, we propose the following hypothesis:

H_4: Trust in ESG reports mediates the relationship between sustainability assurance and Generation Z's green investment decisions.

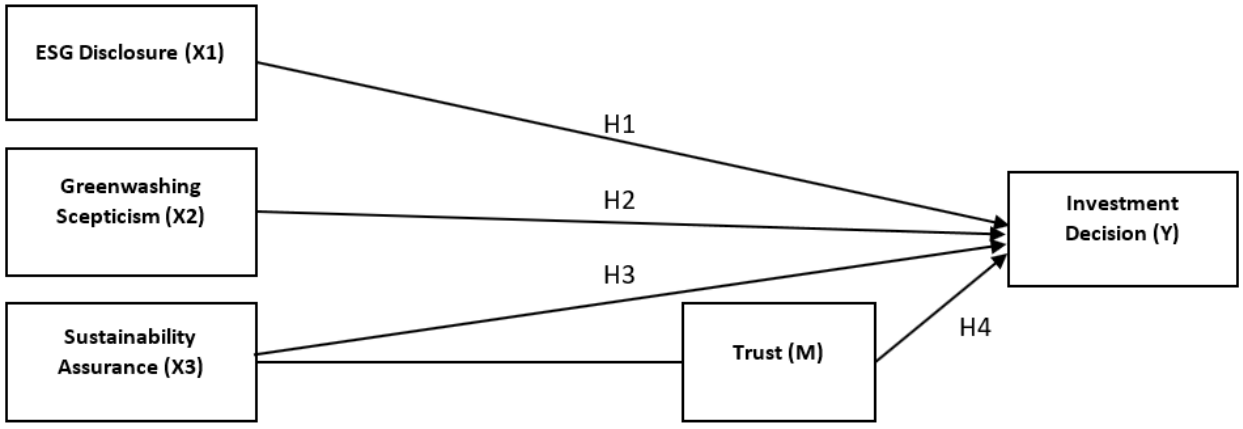

Figure 1.
Proposed Research Model.

In this study, trust in sustainability information is positioned exclusively as a mediator in the relationship between Sustainability Assurance and Generation Z's Green Investment Decisions. The rationale lies in the distinct nature of each independent variable. ESG disclosure, although commonly used as a signal of corporate sustainability commitment, represents voluntary and unilateral reporting that is vulnerable to selective disclosure and impression management [39].

Without external validation, such disclosure remains informational rather than relational, and thus does not consistently foster trust; its impact on investment decisions is better interpreted as direct. Greenwashing skepticism, in turn, embodies investor doubt toward sustainability claims. As skepticism inherently reflects the absence of trust, positioning trust as a mediator in this pathway is conceptually inconsistent, since heightened skepticism directly reduces investment intention [40].

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By contrast, sustainability assurance introduces third-party verification that mitigates information asymmetry and enhances credibility [33]. In this context, trust becomes an essential assurance; it only influences investment decisions to the extent that investors perceive the assuring entity and process as reliable. Hence, trust mediates the assurance–investment link, serving as the mechanism through which sustainability assurance enhances investors' willingness to invest. This placement aligns with signaling and agency theory, emphasizing that only assurance provides the external validation necessary for trust to meaningfully shape Gen Z's investment behavior.

2.5. Theory of Planned Behavior: Generation Z and Green Investment Decision

According to the Theory of Planned Behavior (TPB) [41], an individual's intention to act is influenced by attitudes, subjective norms, and perceived behavioral control. In the case of green investment, attitudes reflect the personal evaluation of sustainable assets, subjective norms indicate social and peer pressures, and perceived behavioral control relates to financial literacy, access to green financial products, and confidence in making ESG-related investment decisions.

Empirical evidence indicates that positive attitudes and supportive social environments substantially enhance intentions toward sustainable investing [6]. This is particularly relevant for Generation Z, which places sustainability at the heart of its personal and professional values [2]. Social media platforms, peer networks, and global awareness movements further amplify the normative pressures that shape their preferences for sustainable investments.

Within this framework, the Theory of Planned Behavior (TPB) provides a robust foundation in explaining Gen Z's green investment behavior. When they perceive sustainable investment as beneficial, supported by their social environment, and practically accessible, their intention to invest strengthens. Thus, their investment choices are driven not only by financial rationality but also by values, social influence, and perceived control, making TPB highly relevant for this study.

3. Research Methodology

3.1. Research Design

In this study, a quantitative approach will be used for hypothesis testing and to explain the causal relationship between the variables using numerical data collected through a questionnaire. The research type employed is explanatory research, aiming to elucidate cause-and-effect relationships between the independent variables (ESG Disclosure, Greenwashing skepticism, and Sustainability Assurance) and the dependent variable (Gen Z's green investment decisions). Additionally, this study will examine the mediating role of trust in sustainability assurance within this relationship.

3.2. Sample and Data Collection Techniques

According to IDN Research Institute [1], Indonesia is currently experiencing a demographic bonus, with 70.72% of its population in the productive age group (15–64). Within this segment, Generation Z (born between 1997–2012) constitutes one-third of the total population, and nearly half of them have entered the productive workforce. Their investment priorities, financial behaviors, and sustainability-oriented values are becoming increasingly important in shaping Indonesia's economic transformation. Furthermore, previous studies that discussed similar topics have not widely focused on Indonesia as a research subject. This is a research gap that can be filled and is the basis for our choice of geographical context in this study.

The sampling technique used in this study is purposive sampling, where the selection of respondents is based on specific criteria relevant to the research. The requirements for respondents are: (1) aged between 18 and 28 years; (2) having investment experience; and (3) domiciled in Indonesia. The required sample size was determined using the rule of thumb for factor analysis. The age range of 18–28 years was chosen because individuals in this range are assumed to have their own income and are capable of making independent investment decisions.

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According to Gorsuch [42], an adequate sample size should be at least five participants for each variable (item) included in the analysis, with larger ratios (for example, ten participants per variable) being preferable to ensure more stable factor solutions. Given the total of 23 indicators in this study, the recommended minimum sample size is 230 respondents (23 indicators × 10 respondents per indicator).

The data used in this study are primary data collected via Google Forms and distributed through multiple digital channels. The questionnaire measures the research variables using a 1–6 Likert scale. All of the questions are adapted from previous studies that are relevant and have been proven to be valid and reliable.

3.3. Data Analysis Method

The collected data will be analyzed using SmartPLS through the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. PLS-SEM is deemed appropriate for this study as it accommodates complex research frameworks and does not assume multivariate normality. Additionally, it performs effectively with small to medium sample sizes [43]. This analytical method is well-suited for examining the relationships among ESG disclosure, greenwashing skepticism, and sustainability assurance on Gen Z investors' investment decisions in Indonesia, with trust acting as a mediating variable between sustainability assurance and investment behavior.

Furthermore, PLS-SEM offers flexibility and maintains robust statistical power even with limited sample sizes, making it ideal for this study's dataset of 238 respondents. This technique enables a more comprehensive understanding of the interrelationships among constructs and an effective assessment of their predictive effects [43].

3.3.1. Outer Model

At the outer model stage, the analysis evaluates the validity and reliability of the research instrument based on several criteria: (1) outer loadings greater than 0.70, indicating that each indicator sufficiently represents its construct; (2) Cronbach's Alpha (CA) greater than 0.70, confirming internal consistency reliability; (3) composite reliability (CR) greater than 0.70, signifying adequate construct reliability; (4) Average Variance Extracted (AVE) greater than 0.50, demonstrating that the construct explains more than half of the variance of its indicators; (5) each indicator's cross-loading on its intended construct must be higher than its loading on other constructs, serving as an additional test for discriminant validity; and (6) Fornell–Larcker Criterion, which requires that the square root of each construct's AVE be higher than its correlations with other constructs, thereby providing further evidence of discriminant validity.

3.3.2. Inner Model

After the data are considered valid and reliable, the analysis proceeds to test the relationships between variables (hypothesis testing). This evaluation of the inner model is conducted using several indicators: (1) path coefficients, which indicate the strength and direction of the relationships between constructs, where higher and statistically significant values reflect stronger causal effects; (2) the coefficient of determination (R^2), which shows how much the independent variables explain the dependent variable, with higher R^2 indicating stronger explanatory power; (3) the predictive relevance (Q^2), assessed through the blindfolding procedure, where values greater than 0 demonstrate predictive capability; and (4) hypothesis testing, conducted using the bootstrapping method, where relationships are considered significant if the p-value is less than 0.05 and the t-value is greater than 1.96.

4. Results and Discussion

4.1. Demographic Information

Data were collected from 258 respondents using a convenience sampling method, and after data cleaning, 238 valid responses were retained for analysis, consistent with prior research on sustainable investment behavior [30, 31]. The questionnaire included demographic questions and items measuring

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ESG disclosure, greenwashing skepticism, sustainability assurance, trust, and investment decisions, all adapted from established scales to the Indonesian context.

The respondents were predominantly aged 18–23, with most holding or currently enrolled in a bachelor's degree and having low or modest income and investment levels, reflecting the profile of young, early-career professionals and investors.

Table 1.
Demographic Information.

Demographic		Respondents	Proportion (%)
Gender	Female	160	67.2
	Male	78	37.7
Age	18 Years	15	6.3
	19 – 23 Years	140	58.8
	24 – 28 Years	83	34.8
Highest Level of Education	Junior - Senior High School	59	32.9
	Diploma (D3)	34	18.9
	Bachelor's degree (S1)	135	75.4
	Master's degree (S2) or higher	10	5.5
Income per Month	Under than Rp5.000.000.-	125	52.5
	Between Rp5.000.000.- and Rp30.000.000.-		
	More than Rp30.000.000.-	101	42.4
		12	5.0
Amount invested per month	Under than Rp1.000.000.-	128	53.7
	Between Rp1.000.000- and Rp5.000.000.-		
	More than Rp5.000.000.-	94	39.5
		16	6.7

4.2. Outer Model

Table 2.
Outer Loading, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted.

	Outer	α	Composite Reliability	AVE
ED 1	0.835	0.843	0.889	0.616
ED 2	0.737			
ED 3	0.753			
ED 4	0.742			
ED 5	0.849			
GS 1	0.854	0.911	0.933	0.736
GS 2	0.83			
GS 3	0.853			
GS 4	0.86			
GS 5	0.891			
ID 1	0.774	0.779	0.858	0.602
ID 2	0.816			
ID 3	0.737			
ID 4	0.774			
SA 1	0.839	0.802	0.871	0.628
SA 2	0.76			
SA 3	0.783			
SA 4	0.785			
T 1	0.795	0.852	0.895	0.63
T 2	0.769			
T 3	0.768			
T 4	0.778			
T 5	0.854			

Note: All loadings ≥ 0.70; α = Cronbach's alpha; CR = Composite reliability; AVE = Average variance extracted.

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The evaluation of the measurement model (outer model) indicates that all constructs in this study meet the criteria for reliability and validity, based on the assessment of the measurement model (outer model). The indicators' outer loadings, which range from 0.737 to 0.891, all exceed the recommended cutoff of 0.70, confirming adequate indicator reliability. Strong internal consistency across all constructs is demonstrated by Cronbach's alpha values, which range from 0.779 to 0.911, and Composite Reliability (CR) values, which range from 0.858 to 0.933. Convergent validity is supported by the Average Variance Extracted (AVE) values, which range from 0.602 to 0.736 and are above the minimum threshold of 0.50. Among the constructs, Greenwashing Skepticism exhibits the highest reliability and validity, as evidenced by its high outer loadings, CR, and AVE values. Overall, these findings confirm that the measurement instruments for ESG Disclosure, Greenwashing Skepticism, Sustainability Assurance, Trust in Sustainability, and Generation Z's Investment Decision are valid and reliable, making them suitable for further analysis in the structural model (inner model).

The assessment of discriminant validity was conducted using cross-loadings and the Fornell-Larcker criterion. The cross-loading results indicate that all indicators load higher on their respective constructs than on other constructs, supporting discriminant validity at the indicator level. However, the Fornell-Larcker criterion values reveal substantial overlap among certain constructs. Specifically, the square roots of AVE for Sustainability Assurance (SA) and Trust (T) are not consistently greater than their correlations with other constructs, suggesting that respondents perceive them as strongly interconnected. This conclusion makes conceptual sense because investors tend to be more trusting when there is a credible sustainability promise. Respondents instinctively link greater trust to firms that offer independent verification of their sustainability efforts. Rather than being a problem with the measuring model, the overlap represents how Generation Z actually understands these terms. Crucially, this supports the theoretical role of Trust as a mediator, showing that assurance influences investment decisions more effectively when linked to trust. Thus, both constructs remain in the model.

Table 3.
Cross Loadings.

Cross Loadings	ED	GS	ID	SA	T
ED 1	0.835	0.410	0.667	0.734	0.722
ED 2	0.737	0.384	0.570	0.628	0.686
ED 3	0.753	0.382	0.605	0.682	0.689
ED 4	0.742	0.398	0.553	0.632	0.677
ED 5	0.849	0.472	0.680	0.718	0.785
GS 1	0.467	0.854	0.361	0.475	0.496
GS 2	0.345	0.830	0.258	0.351	0.367
GS 3	0.519	0.853	0.402	0.475	0.524
GS 4	0.399	0.86	0.341	0.431	0.433
GS 5	0.475	0.891	0.378	0.503	0.486
ID 1	0.610	0.320	0.774	0.57	0.609
ID 2	0.645	0.312	0.816	0.638	0.653
ID 3	0.575	0.352	0.737	0.600	0.542
ID 4	0.608	0.300	0.774	0.612	0.593
SA 1	0.709	0.506	0.643	0.839	0.700
SA 2	0.693	0.342	0.630	0.76	0.686
SA 3	0.655	0.451	0.590	0.783	0.658
SA 4	0.690	0.375	0.608	0.785	0.720
T 1	0.712	0.474	0.620	0.668	0.795
T 2	0.734	0.367	0.597	0.656	0.769
T 3	0.680	0.375	0.613	0.691	0.768
T 4	0.698	0.426	0.613	0.675	0.778
T 5	0.777	0.516	0.629	0.768	0.854

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Table 4.
Fornell-Larcker Criterion.

Fornell-Larcker Criterion	ED	GS	ID	SA	T
ED	0.785				
GS	0.523	0.858			
ID	0.787	0.413	0.776		
SA	0.867	0.528	0.780	0.793	
T	0.908	0.546	0.774	0.873	0.794

The assessment of discriminant validity was conducted using cross-loadings and the Fornell-Larcker criterion. The cross-loading results indicate that all indicators load higher on their respective constructs than on other constructs, supporting discriminant validity at the indicator level. However, the Fornell-Larcker criterion values reveal substantial overlap among certain constructs. Specifically, the square roots of AVE for Sustainability Assurance (SA) and Trust (T) are not consistently greater than their correlations with other constructs, suggesting that respondents perceive them as strongly interconnected. This conclusion makes conceptual sense because investors tend to be more trusting when there is a credible sustainability promise. Respondents instinctively link greater trust to firms that offer independent verification of their sustainability efforts. Rather than being a problem with the measuring model, the overlap reflects how Generation Z actually understands these terms. Crucially, this supports the theoretical role of Trust as a mediator, showing that assurance influences investment decisions more effectively when linked to trust. Thus, both constructs remain in the model.

4.3. Inner Model

Table 5.
R^2 and Q^2.

	R^2	Q^2
ID	0.664	0.634
T	0.761	0.761

The coefficient of determination (R^2) for Investment Decisions (ID) is 0.664, indicating that 66.4% of the variance in Gen Z's investment decisions can be explained by ESG Disclosure, Greenwashing Skepticism, Sustainability Assurance, and Trust. Similarly, the R^2 for Trust (T) is 0.761, suggesting that 76.1% of the variance in Trust is explained by Sustainability Assurance. These values are considered substantial [44], reflecting the strong explanatory power of the model. Meanwhile, the predictive relevance (Q^2) values are 0.634 for ID and 0.761 for T, both greater than 0, which indicates that the model has strong predictive relevance and is not affected by collinearity problems. These results confirm that the structural model demonstrates both explanatory and predictive validity, justifying further interpretation of the path coefficients.

Table 6.
Beta, T-Value, P-Value, Decision

Hypothesis		Beta	t	p	Decision
H1	ED → ID	0.339	2.092	0.037	Accept
H2	GS → ID	-0.052	1.180	0.238	Reject
H3	SA → ID	0.345	3.043	0.002	Accept
H4	SA → T	0.873	30.492	0.000	
	T → ID	0.193	1.291	0.197	
Indirect	SA → T → ID	0.168	39.365	0.000	Accept

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The path coefficient analysis reveals that ESG disclosure significantly increases Gen Z's investment decisions (β = 0.339, t = 2.092, p = 0.037), indicating that greater disclosure motivates stronger investment intentions. Greenwashing skepticism, however, is not significant (β = -0.052, t = 1.18, p = 0.238), suggesting that skepticism toward misleading ESG claims does not directly influence investment behavior. Sustainability assurance is shown to have a significant positive effect on investment decisions (β = 0.345, t = 3.043, p = 0.002), highlighting its role in enhancing confidence through independent verification.

In addition, the mediation analysis confirms Hypothesis 4: Trust acts as an intervening variable between Sustainability Assurance and Green Investment Decisions. The direct effect of SA → ID is substantial, but Trust has a strong indirect effect (β = 0.168, t = 39.365, p = 0.000). This demonstrates partial mediation, in which the inclusion of trust in the pathway strengthens the impact of certainty on investment.

Stated differently, certainty by itself can stimulate investment, but its influence on Gen Z's decision-making is strengthened when it cultivates trust. Trust, which reflects the psychological process by which credibility becomes behavior, is therefore crucial in directing the impact of sustainability assurance toward increased investment intention.

4.4. Discussion

The findings reveal that ESG Disclosure has a positive and significant influence on Gen Z's investment decisions (β = 0.339, t = 2.092, p = 0.037). This aligns with Legitimacy Theory, which emphasizes that clear and transparent reporting helps firms maintain social legitimacy by reducing information asymmetry [11, 14]. Clear and transparent reporting can enhance investor confidence [6] and support more informed investment choices [16]. Generational perspectives from prior studies indicate that Gen Z highly values sustainability and demands open disclosure from corporations [2, 3]. Therefore, ESG disclosure is a key factor influencing Gen Z in allocating their investments toward responsible companies.

Past research found a negative correlation between skepticism and investment intentions [28, 29]. Our research results indicate that investment decisions are not significantly impacted by greenwashing skepticism (β = -0.052, t = 1.18, p = 0.238). Several possible reasons for this result include, first, it may be challenging for Gen Z investors to base decisions solely on skepticism, as many may lack substantial investment experience. Second, perceptions may be more strongly influenced by other factors such as assurance and transparency. Third, it might be difficult to distinguish between intentional greenwashing and genuine disclosure flaws, especially for younger investors. Nilsson [30] and Sandberg et al. [31] resonate with this, arguing that the impact of greenwashing varies depending on other factors such as personal values, financial literacy, and knowledge.

Sustainability assurance demonstrates a positive and significant effect on investment decisions (β = 0.345, t = 3.043, p = 0.002). This supports agency theory, where assurance mechanisms reduce agency conflicts and enhance information reliability [33]. Prior studies confirm that assurance increases report credibility [34], mitigates perceptions of greenwashing [37], and strengthens stakeholder confidence [9]. It can also lower the cost of capital [7]. For Generation Z, who are particularly sensitive to authenticity and verification, the presence of assurance serves as a tangible signal of commitment, thereby motivating investment.

Furthermore, the mediation analysis provides strong evidence that Trust plays a significant intervening role in the relationship between Sustainability Assurance and Investment Decisions. While the direct effect of SA on ID remains high, the indirect effect via Trust is also significant (β = 0.168, t = 39.365, p = 0.000), indicating partial mediation. This means that assurance not only directly impacts investment decisions but also enhances them through greater levels of trust.

The result is consistent with Behavioral Finance Theory, which recognizes trust as a key psychological factor influencing financial decisions [38]. Sustainability assurance fosters confidence in

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ESG information, and this trust subsequently reinforces Gen Z's willingness to invest. Similar findings are reported by Mortimore [9] and Xia et al. [10], who highlight trust as a central mechanism by which assurance shapes sustainable investment behavior.

5. Conclusion and Recommendation

5.1. Conclusion

Even though greenwashing skepticism does not directly influence investment behavior, this study highlights that ESG transparency and sustainability assurance are significant determinants of Gen Z's investment decisions.

The results may reflect Gen Z's limited investment experience or difficulty in detecting greenwashing practices, as they are more responsive to transparent information and independent verification than to skepticism toward misleading claims. Furthermore, trust is found to partially mediate the effect of sustainability assurance on investment decisions, reflecting its role as a psychological bridge that translates credibility into behavioral intention.

These results support the combined perspective of Legitimacy, Signaling, Agency, and Behavioral Finance theories, suggesting that Gen Z investors' sustainable investment choices are shaped not only by cognitive assessments of ESG data but also by emotional factors such as trust. Collectively, the findings show that Gen Z, as both idealistic and discerning, upholds sustainability values but commits to action only when information is reliable, consistent, and independently verified.

This highlights the essential role of trust in fostering a generation of investors who approach sustainable finance through a blend of idealism and critical judgment.

From a theoretical standpoint, this research broadens the scope of sustainability accounting and behavioral finance by integrating institutional, informational, and psychological viewpoints. It proposes a holistic framework illustrating that ESG disclosure (serving as a legitimacy mechanism), greenwashing skepticism (representing signal distortion), and sustainability assurance (functioning as agency alignment) are interlinked through trust, which acts as a behavioral mediator.

This integration contributes to the emerging discourse on how young investors in developing economies interpret and respond to sustainability information, offering empirical support for extending traditional financial behavior models with ethical and credibility-based constructs.

5.2. Practical Implication

From a practical standpoint, the findings highlight that companies aiming to attract Gen Z investors should prioritize transparent ESG reporting and obtain independent sustainability assurance to enhance perceived credibility. Younger investors appear to value authenticity and trustworthiness more than reactive skepticism, emphasizing the need for organizations to demonstrate consistency and accountability in sustainability communication.

Firms should communicate ESG performance with clarity and authenticity to signal accountability and ethical commitment. Regulators and standard-setters, such as OJK and IAI, may consider establishing assurance and disclosure standards that enhance the reliability and comparability of sustainability information. Additionally, financial educators and institutions should promote sustainability literacy programs to help young investors critically interpret ESG data and avoid misinformation.

By fostering trust through reliable disclosures and credible assurance, firms can strengthen their legitimacy and encourage greater participation in sustainable finance.

5.3. Limitations and Future Research Directions

This study has several limitations. First, its sample focuses solely on Gen Z investors in Indonesia, which limits the generalizability of findings to other generations or countries. Second, the cross-sectional design captures perceptions at a single point in time, thus restricting the ability to infer causality. Third, reliance on self-reported data may introduce potential response bias.

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Future research could address these limitations by conducting cross-generational or cross-country comparative studies, employing longitudinal or experimental designs to test causal relationships, and integrating additional mediating or moderating variables, such as sustainability literacy, financial self-efficacy, or risk perception. Combining survey-based methods with case studies or market-based data would also provide deeper insights into how ESG credibility, assurance, and trust interact to shape sustainable investment behavior across different contexts.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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